

## SEQUENCE LISTING

10/561084

<110> Peter Christian MORRIS  
Yvonne STAHL

14020 Rec'd 0000000 16 DEC 2005

<120> Plant Limit Dextrinase Inhibitor

<130> 13101/49101

<140> To be assigned

<141> Herewith

<150> PCT/GB2004/002583

<151> 17-JUN-2004

<150> GB 0313998.7

<151> 17-JUN-2003

<160> 25

<170> PatentIn Ver. 2.1

<210> 1

<211> 517

<212> DNA

<213> Hordeum vulgare

<220>

<221> CDS

<222> (14)..(457)

<400> 1

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actagtatca aca atg gca tcc gac cat cgt cgc ttc gtc ctc tcc ggc      49
      Met Ala Ser Asp His Arg Arg Phe Val Leu Ser Gly
              1              5              10

gcc gtc ttg ctc tcg gtc ctc gcc gtc gcc gcc gcc acc ctg gag agc      97
Ala Val Leu Leu Ser Val Leu Ala Val Ala Ala Ala Thr Leu Glu Ser
              15              20              25

gtc aag gac gag tgc caa cca ggg gtg gac ttc ccg cat aac ccg tta      145
Val Lys Asp Glu Cys Gln Pro Gly Val Asp Phe Pro His Asn Pro Leu
              30              35              40

gcc acc tgc cac acc tac gtg ataaaaa cgg gtc tgc ggc cgc ggt ccc      193
Ala Thr Cys His Thr Tyr Val Ile Lys Arg Val Cys Gly Arg Gly Pro
              45              50              55              60

agc cgg ccc atg ctg gtg aag gag cgg tgc tgc cgg gag ctg gcg gcc      241
Ser Arg Pro Met Leu Val Lys Glu Arg Cys Cys Arg Glu Leu Ala Ala
              65              70              75

gtc ccg gat cac tgc cgg tgc gag gcg ctg cgc atc ctc atg gac ggg      289
Val Pro Asp His Cys Arg Cys Glu Ala Leu Arg Ile Leu Met Asp Gly
              80              85              90

gtg cgc acg ccg gag ggc cgc gtg gtt gag gga cgg ctc ggt gac agg      337
Val Arg Thr Pro Glu Gly Arg Val Val Glu Gly Arg Leu Gly Asp Arg
              95              100              105

cgt gac tgc ccg agg gag gag cag agg gcg ttc gcc gcc acg ctt gtc      385

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Arg Asp Cys Pro Arg Glu Glu Gln Arg Ala Phe Ala Ala Thr Leu Val
110                      115                      120

acg gcg gcg gag tgc aac cta tcg tcc gtc cag gag ccg gga gta cgc 433
Thr Ala Ala Glu Cys Asn Leu Ser Ser Val Gln Glu Pro Gly Val Arg
125                      130                      135                      140

ttg gtg cta ctg gca gat gga tga cgatcgaaat gcgccaaggt aatgaagcgg 487
Leu Val Leu Leu Ala Asp Gly
                      145

agtactgtat acagaataaa agtactcgag 517

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<210> 2
<211> 147
<212> PRT
<213> Hordeum vulgare

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<400> 2
Met Ala Ser Asp His Arg Arg Phe Val Leu Ser Gly Ala Val Leu Leu
1      5      10      15
Ser Val Leu Ala Val Ala Ala Ala Thr Leu Glu Ser Val Lys Asp Glu
20     25     30
Cys Gln Pro Gly Val Asp Phe Pro His Asn Pro Leu Ala Thr Cys His
35     40     45
Thr Tyr Val Ile Lys Arg Val Cys Gly Arg Gly Pro Ser Arg Pro Met
50     55     60
Leu Val Lys Glu Arg Cys Cys Arg Glu Leu Ala Ala Val Pro Asp His
65     70     75     80
Cys Arg Cys Glu Ala Leu Arg Ile Leu Met Asp Gly Val Arg Thr Pro
85     90     95
Glu Gly Arg Val Val Glu Gly Arg Leu Gly Asp Arg Arg Asp Cys Pro
100    105    110
Arg Glu Glu Gln Arg Ala Phe Ala Ala Thr Leu Val Thr Ala Ala Glu
115    120    125
Cys Asn Leu Ser Ser Val Gln Glu Pro Gly Val Arg Leu Val Leu Leu
130    135    140
Ala Asp Gly
145

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<210> 3
<211> 672
<212> DNA
<213> Hordeum vulgare

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<220>
<221> CDS
<222> (39) .. (482)

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<400> 3
aagagattga accaacgacc aataaactag tatcaaca atg gca tcc gac cat cgt 56
                      Met Ala Ser Asp His Arg
                      1      5

cgc ttc gtc ctc tcc ggc gcc gtc ttg ctc tcg gtc ctc gcc gtc gcc 104
Arg Phe Val Leu Ser Gly Ala Val Leu Leu Ser Val Leu Ala Val Ala
10      15      20

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gcc gcc acc ttg gag agc gtc aag gac gag tgc caa cta ggg gtg gac 152  
 Ala Ala Thr Leu Glu Ser Val Lys Asp Glu Cys Gln Leu Gly Val Asp  
 25 30 35  
 ttc ccg cat aac ccg tta gcc acc tgc cac acc tac gtg ata aaa cgg 200  
 Phe Pro His Asn Pro Leu Ala Thr Cys His Thr Tyr Val Ile Lys Arg  
 40 45 50  
 gtc tgc ggc cgc ggt ccc agc cgg ccc atg ctg gtg aag gag cgg tgc 248  
 Val Cys Gly Arg Gly Pro Ser Arg Pro Met Leu Val Lys Glu Arg Cys  
 55 60 65 70  
 tgc cgg gag ctg gcg gcc gtc ccg gat cac tgc cgg tgc gag gcg ctg 296  
 Cys Arg Glu Leu Ala Val Pro Asp His Cys Arg Cys Glu Ala Leu  
 75 80 85  
 cgc atc ctc atg gac ggg gtg cgc acg ccg gag ggc cgc gtg gtt gag 344  
 Arg Ile Leu Met Asp Gly Val Arg Thr Pro Glu Gly Arg Val Val Glu  
 90 95 100  
 gga cgg ctc ggt gac agg cgt gac tgc ccg agg gag gag cag agg gcg 392  
 Gly Arg Leu Gly Asp Arg Arg Asp Cys Pro Arg Glu Glu Gln Arg Ala  
 105 110 115  
 ttc gcc gcc acg ctt gtc acg gcg gcg gag tgc aac cta tcg tcc gtc 440  
 Phe Ala Ala Thr Leu Val Thr Ala Ala Glu Cys Asn Leu Ser Ser Val  
 120 125 130  
 cag gcg ccg gga gta cgc ttg gtg cta ctg gca gat gga tga 482  
 Gln Ala Pro Gly Val Arg Leu Val Leu Leu Ala Asp Gly  
 135 140 145  
 cgatgcaaat gcgccaaggt aatgaagcgg agtactgtat acagaataaaa agtactcgag 542  
 tgaaaacaaa ctcataaata aaccttgtga gatgtatgcg tatgatctat ggtgtggaca 602  
 gttaaattgt ggccgattga tgaataaaaa aggttgaac aaattaaatt gttgtggggtt 662  
 catatactat 672

<210> 4

<211> 147

<212> PRT

<213> Hordeum vulgare

<400> 4

Met Ala Ser Asp His Arg Arg Phe Val Leu Ser Gly Ala Val Leu Leu  
 1 5 10 15  
 Ser Val Leu Ala Val Ala Ala Ala Thr Leu Glu Ser Val Lys Asp Glu  
 20 25 30  
 Cys Gln Leu Gly Val Asp Phe Pro His Asn Pro Leu Ala Thr Cys His  
 35 40 45  
 Thr Tyr Val Ile Lys Arg Val Cys Gly Arg Gly Pro Ser Arg Pro Met  
 50 55 60  
 Leu Val Lys Glu Arg Cys Cys Arg Glu Leu Ala Ala Val Pro Asp His  
 65 70 75 80  
 Cys Arg Cys Glu Ala Leu Arg Ile Leu Met Asp Gly Val Arg Thr Pro  
 85 90 95  
 Glu Gly Arg Val Val Glu Gly Arg Leu Gly Asp Arg Arg Asp Cys Pro

			100					105					110			
Arg	Glu	Glu	Gln	Arg	Ala	Phe	Ala	Ala	Thr	Leu	Val	Thr	Ala	Ala	Glu	
		115					120					125				
Cys	Asn	Leu	Ser	Ser	Val	Gln	Ala	Pro	Gly	Val	Arg	Leu	Val	Leu	Leu	
	130					135					140					
Ala	Asp	Gly														
145																

<210> 5  
 <211> 621  
 <212> DNA  
 <213> Triticum aestivum

<220>  
 <221> CDS  
 <222> (45)..(506)

<400> 5  
 ggatgaggag gagatgcaac ttgtcaacga caaataaaact atca atg gca tcc aac 56  
 Met Ala Ser Asn  
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cat cgt cgc ttc ctc ctc tcc ggc gcc gtc ttg ctc tca gtc ctc gcc 104  
 His Arg Arg Phe Leu Leu Ser Gly Ala Val Leu Leu Ser Val Leu Ala  
 5 10 15 20

gcc gtg gcc gcc ctg gag agc gtt gag gac gag tgc cag cca ggg gtg 152  
 Ala Val Ala Ala Leu Glu Ser Val Glu Asp Glu Cys Gln Pro Gly Val  
 25 30 35

gcc ttc ccg cac aac gca tta gcc acc tgc cac acc tac gtg atc aaa 200  
 Ala Phe Pro His Asn Ala Leu Ala Thr Cys His Thr Tyr Val Ile Lys  
 40 45 50

cgg gtc tgc ggc cgc ggt ccc agc cgg ccc atg ctg gtg aag gag cgg 248  
 Arg Val Cys Gly Arg Gly Pro Ser Arg Pro Met Leu Val Lys Glu Arg  
 55 60 65

tgt tgc cgg gag ctg gcg gtc gtc ccg gat tac tgc cgg tgc gag gca 296  
 Cys Cys Arg Glu Leu Ala Val Val Pro Asp Tyr Cys Arg Cys Glu Ala  
 70 75 80

ctg cgc gtc ctc atg gat ggg gtg cgc gcg gag gag ggc cac gtg gtg 344  
 Leu Arg Val Leu Met Asp Gly Val Arg Ala Glu Glu Gly His Val Val  
 85 90 95 100

gag ggc cgc ctt ggt gac aga cgt gac tgc ccg agg gag gcg cag cgg 392  
 Glu Gly Arg Leu Gly Asp Arg Arg Asp Cys Pro Arg Glu Ala Gln Arg  
 105 110 115

gag ttc gcc gcc acg ctg gtc acg gcg gcg gag tgc aac ctg ccg acc 440  
 Glu Phe Ala Ala Thr Leu Val Thr Ala Ala Glu Cys Asn Leu Pro Thr  
 120 125 130

gtc tcg gga gtc ggg agt aca ctt ggt gcg acc ggc aga tgg atg acg 488  
 Val Ser Gly Val Gly Ser Thr Leu Gly Ala Thr Gly Arg Trp Met Thr  
 135 140 145

atc gaa ttg ccc aag taa tgaagcgatc aagcgaagta ctctactggc 536

Ile Glu Leu Pro Lys  
150

agatggagta ctgcatgtag aataaaagta ctcaagtga aacaaataaa taaagcttgt 596

gagctgtatg cgtatgaaaa aaaaa 621

<210> 6

<211> 153

<212> PRT

<213> Triticum aestivum

<400> 6

Met	Ala	Ser	Asn	His	Arg	Arg	Phe	Leu	Leu	Ser	Gly	Ala	Val	Leu	Leu
1				5					10					15	
Ser	Val	Leu	Ala	Val	Ala	Ala	Leu	Glu	Ser	Val	Glu	Asp	Glu	Cys	
			20					25				30			
Gln	Pro	Gly	Val	Ala	Phe	Pro	His	Asn	Ala	Leu	Ala	Thr	Cys	His	Thr
		35					40					45			
Tyr	Val	Ile	Lys	Arg	Val	Cys	Gly	Arg	Gly	Pro	Ser	Arg	Pro	Met	Leu
	50					55					60				
Val	Lys	Glu	Arg	Cys	Cys	Arg	Glu	Leu	Ala	Val	Val	Pro	Asp	Tyr	Cys
65					70					75				80	
Arg	Cys	Glu	Ala	Leu	Arg	Val	Leu	Met	Asp	Gly	Val	Arg	Ala	Glu	Glu
				85					90					95	
Gly	His	Val	Val	Glu	Gly	Arg	Leu	Gly	Asp	Arg	Arg	Asp	Cys	Pro	Arg
			100					105					110		
Glu	Ala	Gln	Arg	Glu	Phe	Ala	Ala	Thr	Leu	Val	Thr	Ala	Ala	Glu	Cys
		115					120					125			
Asn	Leu	Pro	Thr	Val	Ser	Gly	Val	Gly	Ser	Thr	Leu	Gly	Ala	Thr	Gly
	130					135					140				
Arg	Trp	Met	Thr	Ile	Glu	Leu	Pro	Lys							
145					150										

<210> 7

<211> 444

<212> DNA

<213> Hordeum spontaneum

<220>

<221> CDS

<222> (1)..(444)

<400> 7

atg	gcg	ttc	aag	tac	cag	ctc	ctc	ctc	tcg	gcc	gcc	gtc	atg	ctc	gcc	48
Met	Ala	Phe	Lys	Tyr	Gln	Leu	Leu	Leu	Ser	Ala	Ala	Val	Met	Leu	Ala	
1				5					10					15		
att	ctc	gcc	gcc	act	gtc	acc	agt	ttc	ggg	gat	atg	tgt	gct	cca	ggg	96
Ile	Leu	Ala	Ala	Thr	Val	Thr	Ser	Phe	Gly	Asp	Met	Cys	Ala	Pro	Gly	
			20					25					30			
gat	gcg	ttg	cca	gcc	aac	cct	ctc	aga	gcc	tgc	cgc	acc	tat	gtg	gtt	144
Asp	Ala	Leu	Pro	Ala	Asn	Pro	Leu	Arg	Ala	Cys	Arg	Thr	Tyr	Val	Val	
		35					40					45				

```

agt caa atc tgc cat gta ggc cct aga cta tcc acc tgg gac atg aag      192
Ser Gln Ile Cys His Val Gly Pro Arg Leu Ser Thr Trp Asp Met Lys
   50                               55                               60

agg cgg tgc tgc gac gag ctg tgc gcc atc ccg gcg tac tgc aga tgc      240
Arg Arg Cys Cys Asp Glu Leu Ser Ala Ile Pro Ala Tyr Cys Arg Cys
   65                               70                               75                               80

gag gcg ctg cgt atc atc atg gat ggg aca gta act tgg cag ggt gtg      288
Glu Ala Leu Arg Ile Ile Met Asp Gly Thr Val Thr Trp Gln Gly Val
                               85                               90                               95

ttc ggt gcc tac ttc aag gac atg ccc aac tgc cct agg gtg atg caa      336
Phe Gly Ala Tyr Phe Lys Asp Met Pro Asn Cys Pro Arg Val Met Gln
                               100                               105                               110

acg agc tac gcc gcc aac ctc gtc aac ccg cag gag tgc aac cta tgg      384
Thr Ser Tyr Ala Ala Asn Leu Val Asn Pro Gln Glu Cys Asn Leu Trp
                               115                               120                               125

act atc cac ggc agc ccg tcc tgc ccc gaa ctg cag ccc gga tat gaa      432
Thr Ile His Gly Ser Pro Ser Cys Pro Glu Leu Gln Pro Gly Tyr Glu
                               130                               135                               140

gtg gtc ttg taa
Val Val Leu
145

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<210> 8
<211> 147
<212> PRT
<213> Hordeum spontaneum

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<400> 8
Met Ala Phe Lys Tyr Gln Leu Leu Leu Ser Ala Ala Val Met Leu Ala
   1           5           10           15
Ile Leu Ala Ala Thr Val Thr Ser Phe Gly Asp Met Cys Ala Pro Gly
           20           25           30
Asp Ala Leu Pro Ala Asn Pro Leu Arg Ala Cys Arg Thr Tyr Val Val
           35           40           45
Ser Gln Ile Cys His Val Gly Pro Arg Leu Ser Thr Trp Asp Met Lys
           50           55           60
Arg Arg Cys Cys Asp Glu Leu Ser Ala Ile Pro Ala Tyr Cys Arg Cys
           65           70           75           80
Glu Ala Leu Arg Ile Ile Met Asp Gly Thr Val Thr Trp Gln Gly Val
           85           90           95
Phe Gly Ala Tyr Phe Lys Asp Met Pro Asn Cys Pro Arg Val Met Gln
           100          105          110
Thr Ser Tyr Ala Ala Asn Leu Val Asn Pro Gln Glu Cys Asn Leu Trp
           115          120          125
Thr Ile His Gly Ser Pro Ser Cys Pro Glu Leu Gln Pro Gly Tyr Glu
           130          135          140
Val Val Leu
145

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<210> 9
<211> 483

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<212> DNA

<213> Oryza sativa

<220>

<221> CDS

<222> (1)..(483)

<400> 9

atg gct tcc aac aag gta gtg ttc tca gtg ttg ctt ctc gcc gtc gtc	48
Met Ala Ser Asn Lys Val Val Phe Ser Val Leu Leu Leu Ala Val Val	
1 5 10 15	
tcc gtg ctc gcg gcg acg gcg acc atg gcg gag tac cac cac caa gac	96
Ser Val Leu Ala Ala Thr Ala Thr Met Ala Glu Tyr His His Gln Asp	
20 25 30	
cag gtg gtc tac acc ccg ggc ccg ctc tgt cag cca gga atg ggc tac	144
Gln Val Val Tyr Thr Pro Gly Pro Leu Cys Gln Pro Gly Met Gly Tyr	
35 40 45	
ccg atg tac ccg ctc ccg cgt tgc cgg gcg ttg gtg aag cgc cag tgc	192
Pro Met Tyr Pro Leu Pro Arg Cys Arg Ala Leu Val Lys Arg Gln Cys	
50 55 60	
gtc ggc cgt ggc acg gcc gcc gcc gcc gag cag gtc cgg cga gac tgc	240
Val Gly Arg Gly Thr Ala Ala Ala Ala Glu Gln Val Arg Arg Asp Cys	
65 70 75 80	
tgc cgg cag ctc gcc gcc gtc gac gac agc tgg tgc agg tgc gag gcg	288
Cys Arg Gln Leu Ala Ala Val Asp Asp Ser Trp Cys Arg Cys Glu Ala	
85 90 95	
atc agc cac atg ctg gga ggc atc tac agg gag ctc ggc gcc ccc gat	336
Ile Ser His Met Leu Gly Gly Ile Tyr Arg Glu Leu Gly Ala Pro Asp	
100 105 110	
gtc ggg cac ccc atg tcc gag gtg ttc cgc ggc tgc cgg aga ggg gac	384
Val Gly His Pro Met Ser Glu Val Phe Arg Gly Cys Arg Arg Gly Asp	
115 120 125	
ttg gag cgc gcg gcg gcg agc ctc ccg gcg ttc tgc aac gtg gac atc	432
Leu Glu Arg Ala Ala Ala Ser Leu Pro Ala Phe Cys Asn Val Asp Ile	
130 135 140	
ccc aac ggc gga ggt ggt gtc tgc tac tgg ctg gcg aga tct ggc tac	480
Pro Asn Gly Gly Gly Gly Val Cys Tyr Trp Leu Ala Arg Ser Gly Tyr	
145 150 155 160	
tag	483

<210> 10

<211> 160

<212> PRT

<213> Oryza sativa

<400> 10

Met Ala Ser Asn Lys Val Val Phe Ser Val Leu Leu Leu Ala Val Val	
1 5 10 15	
Ser Val Leu Ala Ala Thr Ala Thr Met Ala Glu Tyr His His Gln Asp	





agc ggc ctc atc gat ctg ccc gga tgc ccc agg gag atg caa tgg gac 437  
 Ser Gly Leu Ile Asp Leu Pro Gly Cys Pro Arg Glu Met Gln Trp Asp  
 125 130 135  
 ttc gtc aga tta ctc gtc gcc ccg ggg cag tgc aac ttg gcg acc att 485  
 Phe Val Arg Leu Leu Val Ala Pro Gly Gln Cys Asn Leu Ala Thr Ile  
 140 145 150  
 cac aat gtt cga tac tgc ccc gcc gtg gaa cag cct ctg tgg atc tag 533  
 His Asn Val Arg Tyr Cys Pro Ala Val Glu Gln Pro Leu Trp Ile  
 155 160 165  
 agataaaatc agtcgctcgt gaataagcat gcatgttgca tccataggcg tgtgggtgtgc 593  
 atgtatacat atgtgagctc cgcgcgctca acatgtgtgg gctatctgct atgaatgaga 653  
 ataaagagaa tcattctgtg gttctttaat ttcaactaaa aaaaaaaaaa aaaa 707

<210> 12  
 <211> 168  
 <212> PRT  
 <213> Triticum durum

<400> 12  
 Met Ala Cys Lys Ser Ser Cys Ser Leu Leu Leu Leu Ala Ala Val Leu  
 1 5 10 15  
 Leu Ser Val Leu Ala Ala Ala Ser Ala Ser Gly Ser Cys Val Pro Gly  
 20 25 30  
 Val Ala Phe Arg Thr Asn Leu Leu Pro His Cys Arg Asp Tyr Val Leu  
 35 40 45  
 Gln Gln Thr Cys Gly Thr Phe Thr Pro Gly Ser Lys Leu Pro Glu Trp  
 50 55 60  
 Met Thr Ser Ala Ser Ile Tyr Ser Pro Gly Lys Pro Tyr Leu Ala Lys  
 65 70 75 80  
 Leu Tyr Cys Cys Gln Glu Leu Ala Glu Ile Ser Gln Gln Cys Arg Cys  
 85 90 95  
 Glu Ala Leu Arg Tyr Phe Ile Ala Leu Pro Val Pro Ser Gln Pro Val  
 100 105 110  
 Asp Pro Arg Ser Gly Asn Val Gly Glu Ser Gly Leu Ile Asp Leu Pro  
 115 120 125  
 Gly Cys Pro Arg Glu Met Gln Trp Asp Phe Val Arg Leu Leu Val Ala  
 130 135 140  
 Pro Gly Gln Cys Asn Leu Ala Thr Ile His Asn Val Arg Tyr Cys Pro  
 145 150 155 160  
 Ala Val Glu Gln Pro Leu Trp Ile  
 165

<210> 13  
 <211> 712  
 <212> DNA  
 <213> Zea mays

<220>  
 <221> CDS  
 <222> (33) .. (500)

<400> 13

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catccatcga gaggccgtcg acaggggaat ta atg gcg tcg tcg tct agc agc 53
                               Met Ala Ser Ser Ser Ser Ser
                               1                               5

agc cac cgc cgc ctc atc ctc gca gcc gcc gtc ctg ctc tcc gtg ctc 101
Ser His Arg Arg Leu Ile Leu Ala Ala Ala Val Leu Leu Ser Val Leu
      10                               15                               20

gcg gct gcc agc gcc agc gcc ggg acc tcc tgc gtg ccg ggg tgg gcc 149
Ala Ala Ala Ser Ala Ser Ala Gly Thr Ser Cys Val Pro Gly Trp Ala
      25                               30                               35

atc ccg cac aac ccg ctc ccg agc tgc cgc tgg tac gtg acc agc cgg 197
Ile Pro His Asn Pro Leu Pro Ser Cys Arg Trp Tyr Val Thr Ser Arg
      40                               45                               50                               55

acc tgc ggc atc ggg ccg cgc ctc ccg tgg ccg gag ctg aag agg aga 245
Thr Cys Gly Ile Gly Pro Arg Leu Pro Trp Pro Glu Leu Lys Arg Arg
      60                               65                               70

tgc tgc cgg gag ctg gcg gac atc ccg gcg tac tgc cgg tgc acg gcg 293
Cys Cys Arg Glu Leu Ala Asp Ile Pro Ala Tyr Cys Arg Cys Thr Ala
      75                               80                               85

ctg agc atc ctc atg gac ggc gcg atc ccg cct ggc ccg gac gcg cag 341
Leu Ser Ile Leu Met Asp Gly Ala Ile Pro Pro Gly Pro Asp Ala Gln
      90                               95                               100

ctg gag ggc cgc cta gag gac ctg ccg ggc tgc ccg cgg gag gtg cag 389
Leu Glu Gly Arg Leu Glu Asp Leu Pro Gly Cys Pro Arg Glu Val Gln
      105                               110                               115

agg gga ttc gcc gcc acc ctc gtc acg gag gcc gag tgc aac ctg gcc 437
Arg Gly Phe Ala Ala Thr Leu Val Thr Glu Ala Glu Cys Asn Leu Ala
      120                               125                               130                               135

acc atc agc ggc gtc gcc gaa tgc ccc tgg att ctc ggc ggc gga acg 485
Thr Ile Ser Gly Val Ala Glu Cys Pro Trp Ile Leu Gly Gly Gly Thr
      140                               145                               150

atg ccc tcc aag taa ctgcgaagag catagtgcac gaggaatgag cttgtagcta 540
Met Pro Ser Lys
      155

gctcatatgt ctgaataata agcacagcaa gaagatgaat gcatttctcg gatcggttcac 600

ccggaacaat aattaaagg gatccggatt tgttcttgtg atataattaa cgattcctgt 660

tataacttgga agtagctagg ctcgtcccca tccaatgcaa gcaaaaaaaaa aa 712

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<210> 14

<211> 155

<212> PRT

<213> Zea mays

<400> 14

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Met Ala Ser Ser Ser Ser Ser Ser His Arg Arg Leu Ile Leu Ala Ala
  1                               5                               10                               15

```

Ala Val Leu Leu Ser Val Leu Ala Ala Ala Ser Ala Ser Ala Gly Thr  
20 25 30  
Ser Cys Val Pro Gly Trp Ala Ile Pro His Asn Pro Leu Pro Ser Cys  
35 40 45  
Arg Trp Tyr Val Thr Ser Arg Thr Cys Gly Ile Gly Pro Arg Leu Pro  
50 55 60  
Trp Pro Glu Leu Lys Arg Arg Cys Cys Arg Glu Leu Ala Asp Ile Pro  
65 70 75 80  
Ala Tyr Cys Arg Cys Thr Ala Leu Ser Ile Leu Met Asp Gly Ala Ile  
85 90 95  
Pro Pro Gly Pro Asp Ala Gln Leu Glu Gly Arg Leu Glu Asp Leu Pro  
100 105 110  
Gly Cys Pro Arg Glu Val Gln Arg Gly Phe Ala Ala Thr Leu Val Thr  
115 120 125  
Glu Ala Glu Cys Asn Leu Ala Thr Ile Ser Gly Val Ala Glu Cys Pro  
130 135 140  
Trp Ile Leu Gly Gly Gly Thr Met Pro Ser Lys  
145 150 155

<210> 15  
<211> 122  
<212> PRT  
<213> Eleusine coracana

<400> 15  
Ser Val Gly Thr Ser Cys Ile Pro Gly Met Ala Ile Pro His Asn Pro  
1 5 10 15  
Leu Asp Ser Cys Arg Trp Tyr Val Ala Lys Arg Ala Cys Gly Val Gly  
20 25 30  
Pro Arg Leu Ala Thr Gln Glu Met Lys Ala Arg Cys Cys Arg Gln Leu  
35 40 45  
Glu Ala Ile Pro Ala Tyr Cys Arg Cys Glu Ala Val Arg Ile Leu Met  
50 55 60  
Asp Gly Val Val Thr Pro Ser Gly Gln His Glu Gly Arg Leu Leu Gln  
65 70 75 80  
Asp Leu Pro Gly Cys Pro Arg Gln Val Gln Arg Ala Phe Ala Pro Lys  
85 90 95  
Leu Val Thr Glu Val Glu Cys Asn Leu Ala Thr Ile His Gly Gly Pro  
100 105 110  
Phe Cys Leu Ser Leu Leu Gly Ala Gly Glu  
115 120

<210> 16  
<211> 121  
<212> PRT  
<213> Secale cereale

<400> 16  
Ser Val Gly Gly Gln Cys Val Pro Gly Leu Ala Met Pro His Asn Pro  
1 5 10 15

Leu Gly Ala Cys Arg Thr Tyr Val Val Ser Gln Ile Cys His Val Gly  
                   20                                  25                                  30  
 Pro Arg Leu Phe Thr Trp Asp Met Lys Arg Arg Cys Cys Asp Glu Leu  
                   35                                  40                                  45  
 Leu Ala Ile Pro Ala Tyr Cys Arg Cys Glu Ala Leu Arg Ile Leu Met  
                   50                                  55                                  60  
 Asp Gly Val Val Thr Gln Gln Gly Val Phe Glu Gly Gly Tyr Leu Lys  
                   65                                  70                                  75                                  80  
 Asp Met Pro Asn Cys Pro Arg Val Thr Gln Arg Ser Tyr Ala Ala Thr  
                                   85                                  90                                  95  
 Leu Val Ala Pro Gln Glu Cys Asn Leu Pro Thr Ile His Gly Ser Pro  
                   100                                  105                                  110  
 Tyr Cys Pro Thr Leu Gln Ala Gly Tyr  
                   115                                  120

<210> 17  
 <211> 35  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: PCR primer

<400> 17  
 accaataaac tagtatcaac aatggcatcc gacca 35

<210> 18  
 <211> 30  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: PCR primer

<400> 18  
 ccaacctttt ttattcatca atcggccaca 30

<210> 19  
 <211> 27  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: PCR primer

<400> 19  
 tcggattcca ttgcccagct atctgtc 27

<210> 20  
 <211> 29  
 <212> DNA

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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR primer

<400> 20
atggggcccta acaatcagta aattgaacg
29

<210> 21
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR primer

<400> 21
cggtaccggc aggctgaagt cca
23

<210> 22
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR primer

<400> 22
ccgggggatct accatgagcc caga
24

<210> 23
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR primer

<400> 23
gaatgaaccg aaaccggcgg ta
22

<210> 24
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: PCR primer

<400> 24
taccacctcc ctgaggtttg
20

<210> 25
<211> 20
<212> DNA
<213> Artificial Sequence

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<220>

<223> Description of Artificial Sequence: PCR primer

<400> 25

ccatgcctag ggtcacactt

20